# **REMARKS**

Claims 25-37 are pending in the instant application. Claims 1-24 and 38-47 have been withdrawn from consideration. Claims 25-30 were canceled in order to pursue certain embodiments of the invention pursuant to business interests. Claim 34 was canceled and rewritten as dependent claim 52 to provide a claim commensurate with the scope of the invention. Claim 31 was amended to provide functional language. Support for the amendments is provided throughout the specification. Claims 35-37 were amend ed to correct a typographical error. Clams 48-60 were added. Claims 51 and 52 depend from claims 31 and 35 respectively, and encompass various embodiments of the invention. Independent claim 48, dependent claims 49-50, encompass embodiments of the invention. Independent claim 53, dependent claims 54-68; and independent claim 57, dependent claims 58-60, include uses for the polypeptides of the present invention, as supported in the Examples and throughout the specification. The instant claims are drawn to zslit3 polynucleotides and related inventions. A marked-up version of the changes made to the claims by the current amendment, "Explanation Of Amendments With Markings," is provided. An Appendix with the claim set including amended claims is provided for the Examiner's convenience, and shall not be construed as submission of a re-presented claim set under 37 CFR §1.121. No new matter was added by these amendments.

Early reconsideration and allowance of the pending claims is respectfully requested. If the Patent Examiner believes that a telephone interview would expedite prosecution of this patent application, please call the undersigned at (206) 442-6676.

Respectfully Submitted,

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# Enclosures:

Amendment Fee Transmittal (in duplicate)

Explanation of Amendments with Markings (5 pages)

Appendix (4 pages)

Postcard

# EXPLANATION OF AMENDMENTS WITH MARKINGS TO SHOW CHANGES MADE

## IN THE CLAIMS

Please cancel claims 25-30, and 34 without prejudice to the prosecution thereof in a continuing application.

25. An isolated soluble receptor polypeptide comprising a sequence of amino acid residues that is at least 90% identical to an amino acid sequence as shown in SEQ ID NO:6, and

wherein the soluble receptor polypeptide binds a ligand comprising a polypeptide of SEQ ID NO:10 or SEQ ID NO:47, or antagonizes the ligand activity.

- 26. An isolated polypeptide according to claim 25, wherein the soluble receptor polypeptide forms a homodimeric receptor complex.
- 27. An isolated polypeptide comprising a sequence of amino acid residues that is at least 90% identical to an amino acid sequence as shown in SEQ ID NO:6, wherein the soluble receptor polypeptide forms a heterodimeric or multimeric receptor complex.
- 28. An isolated polypeptide according to claim 27, wherein the soluble receptor polypeptide forms a heterodimeric or multimeric receptor complex further comprising a soluble Class I cytokine receptor.
- 29. An isolated polypeptide according to claim 27, wherein the soluble receptor polypeptide forms a heterodimeric or multimeric receptor complex further comprising a soluble IL 2Rγ receptor polypeptide (SEQ ID NO:4) or a soluble IL 13α' receptor polypeptide (SEQ ID NO:82).

- 30. An isolated polypeptide according to claim 27, wherein the polypeptide further comprises a WSXWS motif as shown in SEQ ID NO:13.
- 34. An isolated polypeptide according to claim 31, wherein the soluble receptor polypeptide further comprises an affinity tag, chemical moiety, toxin, or label.

Please amend the following claims:

31. (Amended) An isolated soluble receptor polypeptide comprising a sequence of amino acid residues as shown in SEQ ID NO:6, wherein the soluble receptor polypeptide forms a heterodimeric or multimeric receptor complex; and

wherein the heterodimeric or multimeric receptor complex binds a ligand comprising a polypeptide of SEQ ID NO:10 or SEQ ID NO:47, or antagonizes the ligand activity.

- 35. (Amended) An isolated heterodimeric or multimetric multimeric soluble receptor complex comprising soluble receptor subunits, wherein at least one of soluble receptor subunits comprises a soluble receptor polypeptide comprising a sequence of amino acid residues as shown in SEQ ID NO:6.
- 36. (Amended) An isolated heterodimeric or multimetric multimeric soluble receptor complex according to claim 35, further comprising a soluble Class I cytokine receptor polypeptide.
- 37. (Amended) An isolated heterodimeric or multimetric multimeric soluble receptor complex according to claim 35, further comprising a soluble IL-2Rγ receptor polypeptide (SEQ ID NO:4) or a soluble IL-13α' receptor polypeptide (SEQ ID NO:82).

Please add the following new claims:

--48. An isolated heterodimeric receptor complex comprising two soluble receptor subunits, wherein the first soluble receptor subunit consists of a soluble receptor

polypeptide comprising a sequence of amino acid residues as shown in SEQ ID NO:6, and the second receptor subunit consists of a soluble receptor polypeptide comprising soluble IL-2Rγ receptor polypeptide (SEQ ID NO:4).

- 49. An isolated heterodimeric receptor complex according to claim 48, wherein the heterodimeric receptor complex binds a ligand comprising a polypeptide of SEQ ID NO:10 or SEQ ID NO:47, or antagonizes the ligand activity.
- 50. An isolated heterodimeric receptor complex according to claim 48, wherein at least one of the soluble receptor subunits further comprises an affinity tag, label, chemical moiety, toxin, biotin/avidin label, radionuclide, enzyme, substrate, cofactor, inhibitor, fluorescent marker, chemiluminescent marker, toxin, cytotoxic molecule or an immunoglobulin Fc domain.
- 51. An isolated heterodimeric or multimeric receptor soluble complex according to claim 35, wherein the soluble receptor complex further comprises an affinity tag, label, chemical moiety, toxin, biotin/avidin label, radionuclide, enzyme, substrate, cofactor, inhibitor, fluorescent marker, chemiluminescent marker, toxin, cytotoxic molecule or an immunoglobulin Fc domain.
- 52. An isolated soluble receptor polypeptide according to claim 31, wherein the soluble receptor polypeptide further comprises an affinity tag, label, chemical moiety, toxin, biotin/avidin label, radionuclide, enzyme, substrate, cofactor, inhibitor, fluorescent marker, chemiluminescent marker, toxin, cytotoxic molecule or an immunoglobulin Fc domain.
- 53. A method of using a heterodimeric or multimeric receptor complex to detect a natural ligand from lymphoid cells comprising:

Isolating a heterodimeric or multimeric receptor complex comprising the amino acid sequence as shown in SEQ ID NO:6; and

exposing the heterodimeric or multimeric receptor complex to activated CD3+ selected human T-cell conditioned media, and

wherein the heterodimeric or multimeric receptor complex exhibits cell proliferation activity or signal transduction activity when exposed to activated CD3+ selected human T-cell conditioned media; and thereby

detecting the natural ligand.

- 54. A method of using a heterodimeric or multimeric receptor complex according to claim 53, wherein isolated heterodimeric or multimeric receptor complex further comprises a soluble IL-2Rγ receptor polypeptide amino acid sequence as shown in SEQ ID NO:4.
- 55. A method of using a heterodimeric or multimeric receptor complex according to claim 54, further comprising

isolating the heterodimeric or multimeric receptor complex comprising SEQ ID NO:6 and SEQ ID NO:4 to use as an antagonist to competitively inhibit the cell proliferation or signal transduction activity of the natural ligand from lymphoid cells.

- 56. A method according to claim 55, wherein the ligand comprises a polypeptide of SEQ ID NO:10 or SEQ ID NO:47.
- 57. A method of using a heterodimeric or multimeric receptor complex to detect a natural ligand from lymphoid cells comprising:

transfecting a cell with a vector or vectors comprising a transcription promoter; DNA segments encoding a heterodimeric or multimeric receptor complex comprising the amino acid sequence as shown in SEQ ID NO:6; and a transcription terminator, wherein the promoter is operably linked to the DNA segment, and the DNA segment is operably linked to the transcription terminator; and wherein the cell expresses the polypeptide encoded by the DNA sequence; and

exposing the cell expressing the heterodimeric or multimeric receptor complex to activated CD3+ selected human T-cell conditioned media,

wherein the heterodimeric or multimeric receptor complex exhibits cell proliferation or signal transduction activity when exposed to activated CD3+ selected human T-cell conditioned media; and thereby

detecting the natural ligand.

- 58. A method of using a heterodimeric or multimeric receptor complex according to claim 57, wherein the DNA segments further encode a soluble IL-2Rγ receptor polypeptide amino acid sequence as shown in SEQ ID NO:4.
- 59. A method of using a polypeptide according to claim 58, further comprising isolating a heterodimeric or multimeric receptor complex comprising SEQ ID NO:6 and SEQ ID NO:4 to use as an antagonist to competitively inhibit the cell proliferation or signal transduction activity of the natural ligand from lymphoid cells.
- 60. A method according to claim 59, wherein the ligand comprises a polypeptide of SEQ ID NO:10 or SEQ ID NO:47. --

#### APPENDIX

### Claim Set with Amended and Added Claims

What is claimed is:

31. (Amended) An isolated soluble receptor polypeptide comprising a sequence of amino acid residues as shown in SEQ ID NO:6, wherein the soluble receptor polypeptide forms a heterodimeric or multimeric receptor complex; and

wherein the heterodimeric or multimeric receptor complex binds a ligand comprising a polypeptide of SEQ ID NO:10 or SEQ ID NO:47, or antagonizes the ligand activity.

- 32. An isolated polypeptide according to claim 31, wherein the soluble receptor polypeptide forms a heterodimeric or multimeric receptor complex further comprising a soluble Class I cytokine receptor.
- 33. An isolated polypeptide according to claim 31, wherein the soluble receptor polypeptide forms a heterodimeric or multimeric receptor complex comprising a soluble IL-2Rγ receptor polypeptide (SEQ ID NO:4) or a soluble IL-13α' receptor polypeptide (SEQ ID NO:82).
- 35. (Amended) An isolated heterodimeric or <u>multimetric multimeric</u> soluble receptor complex comprising soluble receptor subunits, wherein at least one of soluble receptor subunits comprises a soluble receptor polypeptide comprising a sequence of amino acid residues as shown in SEQ ID NO:6.
- 36. (Amended) An isolated heterodimeric or <u>multimetric</u> soluble receptor complex according to claim 35, further comprising a soluble Class I cytokine receptor polypeptide.

37. (Amended) An isolated heterodimeric or multimetric multimeric soluble receptor complex according to claim 35, further comprising a soluble IL-2Rγ receptor polypeptide (SEQ ID NO:4) or a soluble IL-13α' receptor polypeptide (SEQ ID NO:82).

Please add the following new claims:

- -48. An isolated heterodimeric receptor complex comprising two soluble receptor subunits, wherein the first soluble receptor subunit consists of a soluble receptor polypeptide comprising a sequence of amino acid residues as shown in SEQ ID NO:6, and the second receptor subunit consists of a soluble receptor polypeptide comprising soluble IL-2Rγ receptor polypeptide (SEQ ID NO:4).
- 49. An isolated heterodimeric receptor complex according to claim 48, wherein the heterodimeric receptor complex binds a ligand comprising a polypeptide of SEQ ID NO:10 or SEQ ID NO:47, or antagonizes the ligand activity.
- 50. An isolated heterodimeric receptor complex according to claim 48, wherein at least one of the soluble receptor subunits further comprises an affinity tag, label, chemical moiety, toxin, biotin/avidin label, radionuclide, enzyme, substrate, cofactor, inhibitor, fluorescent marker, chemiluminescent marker, toxin, cytotoxic molecule or an immunoglobulin Fc domain.
- 51. An isolated heterodimeric or multimeric receptor soluble complex according to claim 35, wherein the soluble receptor complex further comprises an affinity tag, label, chemical moiety, toxin, biotin/avidin label, radionuclide, enzyme, substrate, cofactor, inhibitor, fluorescent marker, chemiluminescent marker, toxin, cytotoxic molecule or an immunoglobulin Fc domain.
- 52. An isolated soluble receptor polypeptide according to claim 31, wherein the soluble receptor polypeptide further comprises an affinity tag, label, chemical moiety, toxin,

biotin/avidin label, radionuclide, enzyme, substrate, cofactor, inhibitor, fluorescent marker, chemiluminescent marker, toxin, cytotoxic molecule or an immunoglobulin Fc domain.

53. A method of using a heterodimeric or multimeric receptor complex to detect a natural ligand from lymphoid cells comprising:

Isolating a heterodimeric or multimeric receptor complex comprising the amino acid sequence as shown in SEQ ID NO:6; and

exposing the heterodimeric or multimeric receptor complex to activated CD3+ selected human T-cell conditioned media, and

wherein the heterodimeric or multimeric receptor complex exhibits cell proliferation activity or signal transduction activity when exposed to activated CD3+ selected human T-cell conditioned media; and thereby

detecting the natural ligand.

- 54. A method of using a heterodimeric or multimeric receptor complex according to claim 53, wherein isolated heterodimeric or multimeric receptor complex further comprises a soluble IL-2Ry receptor polypeptide amino acid sequence as shown in SEQ ID NO:4.
- 55. A method of using a heterodimeric or multimeric receptor complex according to claim 54, further comprising

isolating the heterodimeric or multimeric receptor complex comprising SEQ ID NO:6 and SEQ ID NO:4 to use as an antagonist to competitively inhibit the cell proliferation or signal transduction activity of the natural ligand from lymphoid cells.

- 56. A method according to claim 55, wherein the ligand comprises a polypeptide of SEQ ID NO:10 or SEQ ID NO:47.
- 57. A method of using a heterodimeric or multimeric receptor complex to detect a natural ligand from lymphoid cells comprising:

transfecting a cell with a vector or vectors comprising a transcription promoter; DNA segments encoding a heterodimeric or multimeric receptor complex comprising the amino acid sequence as shown in SEQ ID NO:6; and a transcription terminator, wherein the promoter is operably linked to the DNA segment, and the DNA segment is operably linked to the transcription terminator; and wherein the cell expresses the polypeptide encoded by the DNA sequence; and

exposing the cell expressing the heterodimeric or multimeric receptor complex to activated CD3+ selected human T-cell conditioned media,

wherein the heterodimeric or multimeric receptor complex exhibits cell proliferation or signal transduction activity when exposed to activated CD3+ selected human T-cell conditioned media; and thereby

detecting the natural ligand.

- 58. A method of using a heterodimeric or multimeric receptor complex according to claim 57, wherein the DNA segments further encode a soluble IL-2Rγ receptor polypeptide amino acid sequence as shown in SEQ ID NO:4.
- 59. A method of using a polypeptide according to claim 58, further comprising isolating a heterodimeric or multimeric receptor complex comprising SEQ ID NO:6 and SEQ ID NO:4 to use as an antagonist to competitively inhibit the cell proliferation or signal transduction activity of the natural ligand from lymphoid cells.
- 60. A method according to claim 59, wherein the ligand comprises a polypeptide of SEQ ID NO:10 or SEQ ID NO:47. --